

ments. In general, the term “or” as used herein shall only be interpreted as indicating exclusive alternatives (i.e. “one or the other but not both”) when preceded by terms of exclusivity, such as “either,” “one of,” “only one of,” or “exactly one of.” “Consisting essentially of,” when used in the claims, shall have its ordinary meaning as used in the field of patent law.

[0255] As used herein in the specification and in the claims, the phrase “at least one,” in reference to a list of one or more elements, should be understood to mean at least one element selected from any one or more of the elements in the list of elements, but not necessarily including at least one of each and every element specifically listed within the list of elements and not excluding any combinations of elements in the list of elements. This definition also allows that elements may optionally be present other than the elements specifically identified within the list of elements to which the phrase “at least one” refers, whether related or unrelated to those elements specifically identified. Thus, as a non-limiting example, “at least one of A and B” (or, equivalently, “at least one of A or B,” or, equivalently “at least one of A and/or B”) can refer, in one embodiment, to at least one, optionally including more than one, A, with no B present (and optionally including elements other than B); in another embodiment, to at least one, optionally including more than one, B, with no A present (and optionally including elements other than A); in yet another embodiment, to at least one, optionally including more than one, A, and at least one, optionally including more than one, B (and optionally including other elements); etc.

[0256] It should also be understood that, unless clearly indicated to the contrary, in any methods claimed herein that include more than one step or act, the order of the steps or acts of the method is not necessarily limited to the order in which the steps or acts of the method are recited.

[0257] In the claims, as well as in the specification above, all transitional phrases such as “comprising,” “including,” “carrying,” “having,” “containing,” “involving,” “holding,” “composed of,” and the like are to be understood to be open-ended, i.e., to mean including but not limited to. Only the transitional phrases “consisting of” and “consisting essentially of” shall be closed or semi-closed transitional phrases, respectively, as set forth in the United States Patent Office Manual of Patent Examining Procedures, Section 2111.03.

What is claimed is:

1-103. (canceled)

104. A method, comprising:

providing a plurality of fluidic droplets contained within a liquid, wherein at least some of the fluidic droplets contain non-immortal cells; and

determining a characteristic of a species secreted by the non-immortal cells within the fluidic droplets.

105-107. (canceled)

108. The method of claim **104**, wherein the characteristic of the species is determined by exposing the non-immortal cell to a second cell.

109-111. (canceled)

112. The method of claim **104**, wherein the characteristic of the species is determined by exposing the non-immortal cell to a first target and a second target.

113. The method of claim **112**, wherein the first target is a cell and the second target is a cell.

114. The method of claim **112**, wherein the first target is a protein and the second target is a protein.

115-136. (canceled)

137. A method, comprising:

providing a fluidic droplet contained within a liquid, the droplet containing an antibody-producing cell and a target;

culturing the antibody-producing cell to secrete antibodies able to recognize the target; and

determining association of the antibodies to the target.

138. The method of claim **137**, wherein the antibody comprises a first signaling entity and the target cell comprises a second signaling entity.

139. The method of claim **138**, comprising determining association of the first signaling entity and the second signaling entity.

140. The method of claim **137**, wherein the target is a protein.

141. The method of claim **137**, wherein the target is a cell.

142. (canceled)

143. The method of claim **137**, comprising providing a plurality of fluidic droplets, including a first droplet containing a first target able to produce a first antibody and a second droplet containing a second target able to produce a second antibody distinguishable from the first antibody.

144-172. (canceled)

173. A method, comprising:

removing blood cells from a subject;

encapsulating at least some of the blood cells in a plurality of fluidic droplets; and

at least partially separating, from the plurality of fluidic droplets, droplets containing antibody-producing cells.

174-176. (canceled)

177. The method of claim **173**, wherein the blood cells are encapsulated in the plurality of fluidic droplets at an average ratio of no more than about 1 blood cell/fluidic droplet.

178. The method of claim **173**, further comprising determining a characteristic of the antibodies produced by the blood cells.

179. The method of claim **178**, wherein determining a characteristic of the antibodies comprises exposing the antibodies to a signaling entity comprising a microparticle and an agent, immobilized relative to the microparticle, able to bind the species.

180. (canceled)

181. The method of claim **173**, further comprising cloning DNA from the antibody-producing cells.

182. The method of claim **181**, wherein the DNA is amplified prior to cloning.

183. (canceled)

184. The method of claim **183**, further comprising culturing the host cell to express the DNA as a protein.

185. (canceled)

186. The method of claim **184**, further comprising administering the protein to the subject.

187-212. (canceled)

213. The method of claim **173**, further comprising:

sequencing DNA from at least one of the antibody-producing cells; and

inserting at least a portion of the DNA in a host cell.

214-225. (canceled)

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